

WHAT IS CLAIMED IS:

1. A conveyor belt washer for cleaning a moving conveyor belt with a pressurized fluid, said belt having opposing planar surfaces, said conveyor belt washer comprising:

- a) a washtank sized and configured to allow said belt to movably pass
5 therethrough, said washtank defining a substantially enclosed container,
- b) a least one spray assembly located within said washtank and positioned adjacent one of said opposing planar surfaces, said spray assembly including at least one spray head oriented to direct said pressurized fluid against said one opposing planar surface, said spray head being rotatably mounted with respect to said tank wherein said head is
10 rotatable through a circular path having a predetermined diameter D; and
- c) at least one splash plate defining a substantially planar splash surface mounted within said washtank and positioned adjacent the other of said opposing planar surfaces, said splash surface being sized to substantially correspond with said circular path of said rotatable spray head wherein said pressurized fluid passing through said belt is
15 continuously redirected against said other opposing planar surface upon contact with said splash surface as said spray head is rotated.

2. The belt washer according to Claim 1, further comprising a spin axis Y located perpendicular to said circular path and passing through the center thereof, and wherein said spray assembly includes a plurality of spray heads each located a distance R

from said spin axis Y, said distance R being equal to $\frac{1}{2}$ of diameter D.

3. The belt washer according to Claim 2, wherein said spray heads are angled with respect to said one opposing planar surface to cause said spray heads to rotate about said spin axis Y when said pressurized fluid is directed therethrough, said spray assembly further including a plurality of fluid bars extending between said spray heads and said spin
5 axis Y.

4. The belt washer according to Claim 3, further comprising a bearing located on said spin axis Y, and wherein said bearing rotatably supports said spray assembly; and

further comprising a connection port for connecting said pressurized fluid to said spray assembly.

5. The belt washer according to Claim 4, wherein each of said heads includes at least one nozzle, and wherein said nozzles are mounted at varying angles with respect to said one opposing planar surface to facilitate cleaning thereof.

6. The belt washer according to Claim 3, wherein said spray assembly is configured to provide gravity-based drainage thereof through said spray heads upon disconnection of said pressurized fluid therefrom.

7. The belt washer according to Claim 1, wherein said splash plate includes a circular groove having an average diameter D' substantially corresponding to said diameter

D, and wherein said splash surface is located within said groove.

8. The belt washer according to Claim 7, wherein said groove has a depth of approximately .03 to .125 inches, and has a width of approximately 1 to 4 inches.

9. The belt washer according to Claim 8, wherein said groove has a depth of approximately 0.6 inches, and has a width of approximately 2 inches.

10. The belt washer according to Claim 7, wherein said opposing planar surface of said belt is supported by a plurality of tracks.

11. The belt washer according to Claim 10, wherein each of said tracks is capped with a wearstrip, and wherein said wearstrip is positioned to be substantially flush with said splash plate.

12. The belt washer according to Claim 1, wherein said splash plate is formed from ultra high molecular weight plastic.

13. The belt washer according to Claim 1, wherein said splash plate includes at least one drainage opening communicating with said groove for allowing said pressurized fluid to drain therefrom.

14. The belt washer according to Claim 1, wherein said washtank includes a leading edge having a slot sized for passage of said belt therethrough to allow said belt to

enter said washtank and a trailing edge having a slot sized for passage of said belt therethrough to allow said belt to exit said washtank.

15. The belt washer according to Claim 14, wherein a portion of said leading edge of said washtank forms a drip edge to facilitate the containment of said pressurized fluid within said tank, said drip edge being set back a distance X in a direction towards said trailing edge.

16. The belt washer according to Claim 15, further comprising a splash curtain located adjacent said slot formed in said leading edge of said washtank and cooperating with said drip edge to facilitate the containment of said pressurized fluid within said tank.

17. The belt washer according to Claim 14, wherein said washtank includes a rear compartment adjacent said trailing edge for drying of said belt, said rear compartment including a pair of spray bars positioned on one side of said belt to form an air curtain to facilitate drying of said belt and containment of said pressurized fluid within said tank.

18. The belt washer according to Claim 17, wherein said washtank includes an upper wall and lower wall, said upper and lower walls defining a leading edge of said rear compartment, and wherein said lower wall supports at least a portion of said splash plate.

19. The belt washer according to Claim 17, wherein said spray bars are mounted to said washtank with split collars.

20. The belt washer according to Claim 17, wherein said each of said spray bars includes a plurality of air nozzles, said air nozzles being mounted to provide overlapping flows of air whereby a substantially continuous air curtain is provided.

21. The belt washer according to Claim 14, wherein said washtank includes an angled bottom to facilitate the collection and drainage of said pressurized fluid.

22. The belt washer according to Claim 21, wherein said angled bottom of said wash tank includes at least one access door to facilitate cleaning of said washtank.

23. The belt washer according to Claim 22, wherein said washtank includes a top edge defining a substantially rectangular shape; and,

further comprising at least one removable panel cooperating with said top edge for enclosing said washtank during use and for allowing access to said spray assembly during
5 servicing.

24. A conveyor belt washer for cleaning a moving conveyor belt with a pressurized fluid, said belt having opposing planar surfaces, said conveyor belt washer comprising:

a) a washtank sized and configured to allow said belt to movably pass
5 therethrough, said washtank defining a substantially enclosed container;

b) a pair of spray assemblies located within said washtank and positioned adjacent one of said opposing planar surfaces, each of said spray assemblies including at least one spray head oriented to direct said pressurized fluid against said one opposing planar surface, each of said spray heads being rotatably mounted with respect to said tank whereby
10 each of said spray heads is rotatable through a circular path having a predetermined diameter D; and

c) a pair of splash plates defining a pair of substantially planar splash surfaces mounted within said washtank and positioned adjacent the other of said opposing planar surfaces, said splash surfaces being sized to substantially correspond with said circular paths
15 of said rotatable spray heads whereby said pressurized fluid passing through said belt is continuously redirected against said other opposing planar surface upon contact with said splash surfaces as said spray heads are rotated.

25. A conveyor belt washer for cleaning a moving conveyor belt with a pressurized fluid, said belt having opposing planar surfaces, said conveyor belt washer comprising:

a) a washtank sized and configured to allow said belt to movably pass
5 therethrough, said washtank defining a substantially enclosed container;

b) a spray assembly located within said washtank and positioned adjacent one of said opposing planar surfaces, said spray assembly including at least one spray head oriented

to direct said pressurized fluid against said one opposing planar surface over a predetermined area; and

- 10 c) a splash plate defining a substantially planar splash surface mounted within said washtank and positioned adjacent the other of said opposing planar surfaces, said splash surface being sized to substantially correspond with said predetermined area whereby said pressurized fluid passing through said belt is continuously redirected against said other opposing planar surface upon contact with said splash surface.